UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,150	09/25/2001	Hugh Barrass	062891.0525	1755

5073　　　　7590　　　　08/09/2007	EXAMINER
BAKER BOTTS L.L.P.	LUGO, DAVID B
2001 ROSS AVENUE	

ART UNIT	PAPER NUMBER
2611	

SUITE 600
DALLAS, TX 75201-2980

NOTIFICATION DATE	DELIVERY MODE
08/09/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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		Application No.	Applicant(s)
Office Action Summary		09/964,150	BARRASS ET AL.
		Examiner	Art Unit
		David B. Lugo	2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>15 June 2006</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-14 and 22</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-14 and 22</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments, see pages 6-8, filed 6/15/06, with respect to the rejection(s) of

claim(s) 1-14 and 22 under 35 U.S.C. 102, 103 and 112 have been fully considered and are

persuasive. Therefore, the rejections have been withdrawn. However, upon further

consideration, a new ground(s) of rejection is made in view of a newly found prior art reference.

Claim Rejections - 35 USC § 102

2.   The text of those sections of Title 35, U.S. Code not included in this action can be found

in a prior Office action.

3.   Claims 1 and 3-10 and are rejected under 35 U.S.C. 102(e) as being anticipated by

Graziano et al. U.S. Patent Application 2003/0099286.

        Regarding claim 1, Graziano discloses a system for choosing a PSD according to line

conditions, the system including a data switch (DSLAM) (see para. 352), where Graziano states

that the power spectral density (PSD) of the transmitted signal is programmable and supports

different defined PSDs (para. 347), and where a plurality of PSDs are stored and chosen for

different conditions in communication to/from one or more CPE devices (see para. 245-248).

        Regarding claims 3 and 4, Graziano discloses that CO and the CPE exchange information

relating to line conditions, where a transmit spectrum is shaped in response thereto (see abstract;

para. 241 and 245-248), where the information is exchanged by what are considered control

packets.

        Regarding claims 5-7, Graziano discloses that one PSD may be optimized for noise

performance and one PSD may be optimized for reach performance (para. 247).

Regarding claim 8, Graziano states that compliance with public standards is satisfied for

at least one of the PSDs (para. 10).

Regarding claims 9 and 10, Graziano indicates that one of the PSDs may be optimized for

noise performance para. 247), said PSD optimized for noise performance considered a high-

probability PSD, which complies with public standards (para. 10).

Claim Rejections - 35 USC § 103

4.   The text of those sections of Title 35, U.S. Code not included in this action can be found

in a prior Office action.

5.   Claims 2 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graziano

et al.

Regarding claim 2, Graziano discloses a system for communicating data comprising a

data switch communicating with one or more CPE devices as described above, but does not

expressly disclose that the data switch is operable to communicate substantially simultaneously

with two or more CPE devices using at least two different PSDs. However, a DSLAM

communicating with two or more CPE devices is well known in the art. Further, Graziano

discloses being able to communicate with a CPE using a PSD chosen for that specific CPE (see

abstract, para. 5). Accordingly, it would have been obvious to one of ordinary skill in the art to

implement the teaching of selecting one of a plurality of PSDs for each of a number of CPEs in

order to provide communication to a plurality of users using optimally selected PSDs.

Regarding claim 13, Graziano discloses a system for communicating data comprising a

data switch as described above, where DSL modems are used (para. 10), but does not expressly

disclose that the data switch uses frequencies in the VDSL band. However, transmitting data

using frequencies in the VDSL band is well known in the art. It would have been obvious to one of ordinary skill in the art to use the system of Graziano using frequencies in theVDSL band as one skilled in the art would expect the benefits to be the same using different DSL systems.

6.   Claims 11, 12, 14 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graziano et al. in view of Baker et al. U.S. Patent 2002/0172273.

Regarding claim 11, Graziano discloses a system for communicating data comprising a data switch as described above, but does not expressly disclose that the data switch is operable to communicate using a PSD defined by a network administrator. Baker discloses that DSLAMs are often programmed by system administrators (para. 3). It would have been obvious to one of ordinary skill in the art to use a PSD defined by a system administrator to establish communication between the DSLAM and the CPE because the administrator will establish parameters including a PSD which will ensure initialization of communication.

Regarding claim 12, Graziano discloses a system for communicating data comprising a data switch as described above, where a PSD is stored as a set of coefficients (para. 246). Graziano does not expressly disclose that the data switch is operable to communicate using a PSD defined by a network administrator. Baker discloses that DSLAMs are often programmed by system administrators (para. 3). It would have been obvious to one of ordinary skill in the art to use a PSD defined by a system administrator to establish communication between the DSLAM and the CPE because the administrator will establish parameters including a PSD which will ensure initialization of communication.

Regarding claim 14, Graziano discloses a system for communicating data comprising a data switch as described above, where a PSD is stored as a set of coefficients (para. 246), and

stored PSDs comply with public standards (para. 10). Graziano does not expressly disclose that the data switch is operable to communicate using a PSD defined by a network administrator. Baker discloses that DSLAMs are often programmed by system administrators (para. 3). It would have been obvious to one of ordinary skill in the art to use a PSD defined by a system administrator to establish communication between the DSLAM and the CPE because the administrator will establish parameters including a PSD which will ensure initialization of communication.

Regarding claim 22, Graziano discloses a system for choosing a PSD according to line conditions, the system including a data switch (DSLAM) (see para. 352), where Graziano states that the power spectral density (PSD) of the transmitted signal is programmable and supports different defined PSDs (para. 347), PSDs are stored as sets of coefficients (para. 246), said stored PSDs complying with public standards (para. 10), and where one of the stored PSDs is chosen for specific line conditions in communication with the one or more CPE devices (para. 245-248).
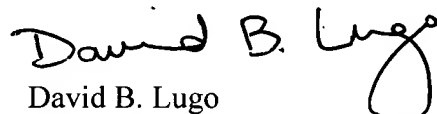
Graziano does not expressly disclose that the data switch is operable to communicate substantially simultaneously with two or more CPE devices using at least two different PSDs. However, a DSLAM communicating with two or more CPE devices is well known in the art. Further, Graziano discloses being able to communicate with a CPE using a PSD chosen for that specific CPE (see abstract, para. 5). Accordingly, it would have been obvious to one of ordinary skill in the art to implement the teaching of selecting one of a plurality of PSDs for each of a number of CPEs in order to provide communication to a plurality of users using optimally selected PSDs.

Further, Graziano does not expressly disclose that the data switch is operable to automatically communicate using a PSD defined by a network administrator. Baker discloses that DSLAMs are often programmed by system administrators (para. 3). It would have been obvious to one of ordinary skill in the art to use a PSD defined by a system administrator to establish communication between the DSLAM and the CPE because the administrator will establish parameters including a PSD which will ensure initialization of communication.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David B. Lugo whose telephone number is 571-272-3043. The examiner can normally be reached on M-F; 9:30-6. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on 571-272-3066. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 or 571-272-1000.

David B. Lugo
Patent Examiner

8/6/07